



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/397,188	09/16/1999	GORDON GRIGOR	0100.9900670	8413

23418 7590 11/18/2003

VEDDER PRICE KAUFMAN & KAMMHOLZ
222 N. LASALLE STREET
CHICAGO, IL 60601

EXAMINER

CHAUHAN, ULKA J

ART UNIT	PAPER NUMBER
----------	--------------

2676

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/397,188

Applicant(s)

GRIGOR ET AL.

Examiner

Ulka J. Chauhan

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-14 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 11-14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,850,232 to Engstrom et al.**

5. As per claims 11, 12, and 17-20, Engstrom teaches a method and system for flipping images in which an application requests the creation of a flipping structure including a memory region 126 serving as a front buffer and a memory region 132 serving as a back buffer at col. 7 lines 17-22 and lines 52-61. Engstrom discloses that the application renders its display image to the back buffer of the flipping structure at col. 15 lines 27-43. Engstrom discloses that to avoid modifying surface memory that the display controller is reading, the display device interface

Art Unit: 2676

checks the state of the display hardware before attempting operations that could cause a conflict by determining whether it is safe to change the address of the memory region that is currently serving as the front buffer at col. 20 lines 9-17. The scan line register is read to analyze the scan line position relative to the position when the last flip occurred and if the scan line is less than the scan line at the time the last flip occurred, then it is safe to assume the previous flip operation has completed and the display address has been changed at col. 21 lines 28-33. Engstrom discloses that the display device interface supports flipping an image in a window using the support for overlays in the display controller within the video cards such as cards 70, 74, 1006, 1056 and that when the flip control determines that it is safe to update the display or overlay address, it executes steps 476-480 at col. 6 lines 25-43, col. 22 lines 31-33 and Fig. 12B. Engstrom discloses that the display device interface includes hardware abstraction layer that is integral to the display hardware within and/or coupled to the host computer at col. 4 lines 34-62. And Engstrom discloses that if the current position of the scan line is below the previous position, then the flip control proceeds by checking whether a refresh period has elapsed since the last flip request; if a refresh time has elapsed, it is safe to update the display address and if not, the flip control returns the "WasStillDrawing" error at col. 22 lines 8-36 and Figs. 12A, B. Therefore, Engstrom discloses that when current scan line is below the line of the last flip and a refresh period has not elapsed, then the display is still being refreshed and a flip operation is prohibited so that a portion adjacent to a portion that is stored in the back buffer is prevented from being stored in the back buffer if a flip occurred in between, and a refresh has not completed.

6. Engstrom discloses video cards such as cards 70, 74, 1006, 1056 but does not expressly teach a video graphics adapter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have implemented the video card as video graphics adapter in order to support a defacto standard.

7. As per claims 13-14, Engstrom discloses that the video card receives image data and display commands from the host computer and controls the transfer of image data to a display monitor and the graphics controller is responsible for acceleration and other graphics operations at col. 5 lines 24-36. Engstrom also discloses that the display device interface acts as an interface to the display hardware such as the video cards and enables applications to access video memory and the special purpose graphics hardware to enhance performance at col. 6 lines 13-24. Engstrom further discloses that to avoid modifying surface memory that the display controller is reading, the display device interface checks the state of the display hardware before attempting operations that could cause a conflict by determining whether it is safe to change the address of the memory region that is currently serving as the front buffer at col. 20 lines 9-17. The scan line register is read to analyze the scan line position relative to the position when the last flip occurred and if the scan line is less than the scan line at the time the last flip occurred, then it is safe to assume the previous flip operation has completed and the display address has been changed at col. 21 lines 28-33. Engstrom discloses that when the flip control determines that it is safe to update the display or overlay address, it executes steps 476-480 at col. 22 lines 31-33 and Fig. 12B. And Engstrom discloses that if the current position of the scan line is below the previous position, then the flip control proceeds by checking whether a refresh period has elapsed since the last flip request; if a refresh time has elapsed, it is safe to update the display

Art Unit: 2676

address and if not, the flip control returns the "WasStillDrawing" error at col. 22 lines 12-30 and Figs. 12A, B. Engstrom discloses video cards such as cards 70, 74, 1006, 1056 but does not expressly teach a video graphics adapter. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have implemented the video card as video graphics adapter in order to support a defacto standard.

Allowable Subject Matter

8. Claims 1-10 are allowed.

9. Claims 15-16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 6/3/03 have been fully considered but they are not persuasive. Applicant argues that the cited prior art fails to teach "storage of the image at the first memory location when the second memory location indicates the raster has accessed data at the first memory location" and "preventing, by the write behind controller, storage of the image at the first memory location when the second memory location indicates the raster has not accessed data at the first memory location". These limitations pertain to claims 1-7 and are not recited in claims 11-14 and 17-20. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
12. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ulka Chauhan** whose telephone number is **(703) 305-9651**. The examiner can normally be reached Mon.-Fri. from 9:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Matthew Bella**, can be reached at **(703) 308-6829**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Art Unit: 2676

14. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 305-4700.



Ulka J. Chauhan
Primary Examiner
Art Unit 2676

ujc
November 17, 2003